

# SMUG BYTES Volume 7, Number 2 February 1990

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SINCLAIR MILWAUKEE USERS GROUP \* P.O. Box 101. Butler WI 53007 \*

### THIS MONTH:

- RGB To NTSC converter
- Whats New With The Fest
- Digitizer It's Here
- Presidents Message
- And Other Great Things

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\* NEXT MEETING DATE: 3/07/90

Send all contributions by the \*
3rd Wednesday of the month to: \*

Bill Heberlein Editor SMUG BYTES 5052 N. 91st Street Milwaukee WI 53225

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- 251 5291

### (NOTE NEITHER ANY AUTHOR OR SMUG BYTES TAKES ANY RESPONSIBILITY FOR ANY HARDWARE MODIFICATIONS TO YOUR EQUIPMENT.) The RGB To NTSC Converter In Other Words Rock Solid Video by Marty Miller

Well I am only 3 months late with this source. The TS2068 is ideal. You will but here is the article I promised. I of course need 12 volts for power and would like to introduce you to an RGB a sync signal. The AERCO and JLO to NTSC converter that works on the expansion's have sync available. I am TS2068. I am talking about a 3" by 2" not familiar with the other systems we circuit board that puts out composite have out there. video so clean that you will have a hard time telling the difference from I am using the JLO DOS and mounted the an RGB monitor. There is not a bit of 3" by 2" board vertically at the left background hash in the picture at all. hand corner of the expansion board. A 80 column text or your highest female "Video Output" connector can be resolution game looks great even on a mounted on the left edge next to the 45" wide screen TV.

The converter is designed around the holes to the left of the third slot. MC1377 IC and is described in the The input to the regulator is taken December issue of Radio Electronics. directly from the 15-18 volt bus on The author originally wrote the the expansion board. More info get the article around the Apple and IBM December issue of Radio Electronics or

second slot. I also mounted the 7812 regulator right in 3 of the existing computer's but it will work on any RGB mail to RGB, 32 Wilson Ave., Trumbull, CT 06611 or call (203) 374-7634.

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### "SO" NOTES

BY R.A.HILSMANN

This month I would like to share a program with you, which I am using since 1982, when I wrote it to keep my Checkbook balanced. Originally I wrote it for the ZX81, but I have since refined most routines, and converted it in 1984 for the 2068.

Checkbook & Budget Manager is written in basic, but I version which is ready to be compiled, and also a version which can be burned to eprom to fit into the carthridge slot on your 2068. Needless to say, I still have a working version for the ZX81 or TS1000. If you feel you do not like to enter 16K basic program by keyboard, or would like to have this program to Eprom, or perhaps wish to burned a compiled version, I will be glad to send you a copy if you send (\$10 for the program burned to Eprom) with a note which version you prefer, to:

R. A. HILSMANN
P.O. BOX 45
MEN. FALLS, WI. 53051

Also let me know if you would like it on Tape or Disk (Oliger only), and if disk, which format (80/40 track etc.). This program can be easely converted to any disk-system of course, but since I not familiar with all other systems in use for the 2068, I will let you do the converting.

Enter the program as it is listed, do not change the line numbers since this may cause problems with gosub's & go to's. The whole program will come in three parts, because of its length, and I will explain the workings of it with the last portion in this Newsletter. There are also a bunch of lines containing hidden Flash codes etc. I will have a list of those lines with the last issue of this program as well. Have fun, and "yes" it's worth it.

10 LET L=SGN PI: LET K=L
20 LET T=VAL "10": GO SUB VAL
"80": GO SUB BP: PRINT AT T,0; "E
NTER PAPER COLOR (0 TO 7) ": PA
USE O: LET S=VAL INKEY\$: LET F=O
: POKE VAL "23509", VAL "5": POKE
VAL "23558", VAL "8": BORDER S:
PAPER S: INK VAL "9": CLS : DIM
B\$(VAL "32"): GO SUB LO
30 GO SUB BP: INPUT "ENTER TOD
AYS DATE = <MM/DD/YY>",AT T,0; I\$
: GO SUB BP: IF K THEN PRINT "D
O YOU WISH TO LOAD DATA (Y/N)":
PAUSE O: IF INKEY\$="Y" THEN GO T
O VAL "7010"
40 IF NOT K THEN GO TO VAL "80 40 IF NOT K THEN GO TO VAL "80 50 GO SUB BP: INPUT "HOW MANY TRANSACTIONS DO YOU" "WISH THIS PROGRAM TO PROCESS" "500 max.", AT VAL "6", O;D: GO SUB VAL "70": GO SUB BP: INPUT "NOW ENTER YOU R STARTING BALANCE ",AT VAL "6", O;"\$ ";C: LET G=C: GO SUB GE: LE T E\$ (VAL "1", VAL "30" TO VAL "38") = M\$: IF F THEN RETURN 50 LET FL=SGN PI: GO TO VAL "1 050 70 DIM E\$(D+VAL "2",VAL "41"): LET U=0: LET M=0: LET X=VAL "2" LET C=0: LET O\$=" NEW REGISTER RETURN 130 PLOT 0,151: DRAW 255,0: DRA 0,24: DRAW -255,0: DRAW 0,-24: RETURN " PRESS ""0" (ZERO 140 PKIN.
) TO EXIT
150 PRINT "
": RETURN

160 BEEP .08,35: RETURN
170 PRINT AT 0,0; "PRESS <ANY KE
Y> TO ENTER DATA PRESS <1> (ON
E) TO CORRECT DATA ": RETURN
180 PRINT " TYPE "'0"" (ZERO
TO FXIT ": RETURN
PRESS ANY KEY TO 140 PRINT " 190 PRINT " PRESS ANY KEY TO CONTINUE ": RETURN 200 DIM M\$(9): LET M\$(1) = "\$": LET R=INT (G\*100+.5): LET R\$="": LET R\$="000" 210 IF R<10 THEN IF R>0 THEN LE R\$="00"+STR\$ R

220 IF R<100 THEN IF R>9 THEN L ET R\$="0"+STR\$ R 230 LET M\$(LEN M\$-LEN R\$ TO ) =R # ( TO LEN R\$-2) +" . " +R\$ (LEN R\$-1 RETURN 400 PRINT AT VAL "16",0;" LIST TO PRINTER (Y/N)": PAUSE 0: IF I NKEY#="Y" THEN LET W=INT PI 410 RETURN 500 CLS : GO SUB BP: LET D\$=I\$( TO 5) 510 LET Z=1: LET N=28: GO SUB A 520 INPUT "ENTER CATEGORY 100 ... ISH TO VIEW"; AT 5,0; A\$: IF A\$="" THEN GO TO VAL "520" THEN GO TO VAL "520" INPUT "ENTER CATEGORY YOU W 530 PRINT AT 12,0;8\$;8\$: LET U= 1: LET FG=U: GO SUB 2220: LET U= 0: LET FG=O: IF FL THEN RETURN 540 PRINT #0;"PRESS ""P"" FOR P 540 PRINT #0; "PRESS ""P"" FOR PRINTOUT"/" ""M"" TO RETURN TO MENU": PAUSE O: IF INKEY#="P THEN COPY 550 IF INKEYS="M" THEN GO TO ME NU 810" 820 GO TO K#1E3 830 GO TO MENU

1000 CLS: LET G=C: GO SUB GE: GO SUB DL: GO SUB ZO: PRINT AT VAL

"5",0;"YOU HAVE MADE ";X-VAL"

2";" ENTRIES","LAST CHECK NO. E

NTERED ";E\$(SGN PI,VAL "4" TO VAL

"7"),"LAST DEPOSIT NO. ENTERE

D ";E\$(SGN PI,VAL "8" TO VAL "9")

"'DATE OF LAST ENTRY ";E\$(X-VAL

"1",VAL "5" TO VAL "9"),""YOUR

BALANCE IS ";M\$: PRINT AT VAL"

18",0;"TO ACCESS ACCOUNTS PRESS

ACCOUNTS PRESS

ACCOUNTS PRINT #O;AT SGN PI,O;"

ENTER CHOICE": PAUSE O: IF INKEY 830 GO TO MENU 18",0;"TO ACCESS ACCOUNTS PRESS
ANY KEY": PRINT #0;AT SGN PI,0;"
ENTER CHOICE": PAUSE 0: IF INKEY
\$="0" THEN GO TO VAL "800"
1010 CLS: GO SUB ZO: GO SUB BP:
LET FL=0: PRINT AT T,0;" TO VIE
W ACCOUNT STATUS PRESS ""V"";AT
VAL "15",0;"TO MAKE A CHANGE TO
AN EXCISTINGACCOUNT TYPE ""C""
'"TO FORMAT NEW ACCOUNTS PRESS
""N"": PAUSE 0: IF INKEY\$="N" T
HEN GO TO VAL "1050"
1020 IF INKEY\$="C" THEN GO TO VA
L "1210"
1030 IF INKEY\$="V" THEN LET F=0:
GO SUB VAL "500": GO TO VAL "10 GO.

1040 GO TO MENU 1050 CLS : GO SUB BP: PRINT AT U AL "5",O;"THERE ARE 24 OUTGOING ACCOUNTS AND 4 INCOME ACCOUNTS WHICH YOU CAN TITLE AND DIMENSION "/"ENTER THE TITLE AND THE AMOUNT", "BUDGETED PER YEAR FOR ALL ACC.": IF NOT FL THEN PRINT ?
IF YOU CONTINUE ALL PRESENTLY
FORMATED ACCOUNTS AND THERE
\_\_\_\_DATA WILL BE ERASED" ? : 6 ącc.": GO 5 UB ZO
1055 GO SUB KY: PAUSE O: IF INKE
Y\$="0" THEN GO TO VAL "1010"
1060 DIM T\$(VAL "28", VAL "32"):
DIM O(VAL "28"): LET FL=0: LET B
=0: LET H=0: LET I=0: LET Z=0: L
ET A=VAL "65": CLS : PRINT AT T,
VAL "5"; "one moment please": FOR
/1 TO 28: LET T\$(L, TO 5)=" ("+
CHR\$ A+") ": LET T\$(L, 24 TO )="
0.00": LET A=A+1: IF L=26 THE
N LET A=35
1070 NEXT : CLS : FOR N=36N PT T UB 1070 NEXT : CLS : FOR J=SGN PI T O VAL "28" STEP VAL "12": PRINT ACCOUNT NAME OF AMOUNT ": FOR /BIN TO UAL "11": GO SUB BP: PRINT AT L+SGN PI,0;T\$(L+J, TO VAL "5"): INPUT "ENTER TITLE >";T\$(L+J,VAL "6" TO VAL "21"): IF T\$(L+J,VAL "6")="0" THEN LET T\$(L+J,VAL "6")="": LET J=VAL " 13": LET L=VAL "12": GO TO VAL " 1130" 1080 IF T\$(L+J,6)="\*" THEN LET T \$(L+J,6)="": LET L=INT PI: GO TO VAL "1110" UAL "1110"

1090 PRINT AT L+SGN PI,0;T\$(L+J,
TO VAL "21"); GO SUB BP: INPUT
"ENTER YEARLY BUDGET >";G: GO S
UB GE: PRINT AT L+SGN PI,VAL "23"
";M\$: LET T\$(L+J,VAL "23" TO )=M
\$: IF Z<SGN PI THEN LET B=B+G: L
ET G=B: GO SUB GE: PRINT AT VAL
"20",VAL "17"; "TOTAL ";M\$;AT VAL
"21",0; "ENTER ""0"" WHEN FINISH
FD! " ED! 1100 IF Z=SGN PI THEN LET H=H+G: Let G=H: GO SUB GE: PRINT AT VA L "20",VAL "17";"TOTAL ";M\$;AT V AL "21",O;"ENTER ""\*"" WHEN FINI SHED! 1110 IF J+L=VAL "28" THEN GO TO VAL "1160" 1120 NEXT 1130 IF J+L>VAL "24" THEN GO TO VAL "1150" 1140 CL5 : NEXT 1150 GO SUB BP: =1: CLS : PRINT GO SUB BP: "NOW TITLE THE NCOME-CATEGORYS AND ENTER THE UERAGE AMOUNT OF YEARLY INCOME OU EXPECT FOR EACH CATEGORY FOR EACH CATEGORY"'
KY: PAUSE 0: CLS : PRI GO SUB KY: PAUSE O: CL " ACCOUNT NAME AMOUN ": CLS : NEXT J ": CLS : NEXT J

1160 CLS : LET G=H: GO SUB GE: P

RINT AT T,0; "TOTAL EXPECTED INCO

ME : "; M\$: LET G=B: GO SUB GE: PR

INT 'TOTAL AMOUNT BUDGETED : "; M

\$! IF H>B THEN LET I=H-B

1170 IF B>H THEN LET I=B-H: PRIN

T AT VAL "14", VAL "17"; "OVER"

1180 LET G=I: GO SUB GE: PRINT A

T VAL "13", VAL "23"; "

ESERVE"; AT VAL "14", VAL "23"; M\$:

GO SUB BP: PRINT ''; GO SUB Z

G: PRINT " FOR PRINTOUT PRESS ""

P""": PAUSE O: IF INKEY\$="P" THE

N COPY

1190 IF F=SGN PI THEN RETURN 1200 GO TO VAL "1010" 1220 IF L<VAL "25" THEN LET B=B+ VAL T\$(L,VAL "24" TO ) 1230 IF L>VAL "24" THEN LET H=H+ VAL T\$(L,VAL "24" TO ) 1240 NEXT : LET U=B: CLS : LET L . T\$(L,VAL "24" TO )

Ø NEXT : LET W=B: CLS : LET L

LET FL=SGN PI: GO SUB VAL "5

LET FL=SGN PI: GO SUB VAL "14" =J: LET FL=SGN PI: GO SUB VAL "5
30": LET FL=O: PRINT AT VAL "14"
,0;: GO SUB ZE: PRINT AT VAL "19
",0;T\$(L): LET B=U: GO SUB BP: I
NPUT "ENTER TITLE >";Q\$: IF Q\$="
0" THEN GO TO VAL "1010"
1250 LET T\$(L,VAL "6" TO VAL "22
")=Q\$: PRINT AT VAL "19",VAL "5"
;Q\$: LET F=VAL T\$(L,VAL "24" TO
): GO SUB BP: INPUT "ENTER AMOUN T
>";G: IF T\$(L,INT PI)="Y" OR T\$(L,INT PI)=
"#" OR T\$(L,INT PI)="\$" AND G>F
THEN LET H=H+(G-F): GO TO VAL "1 THEN LET H=H+(G-F): GO TO VAL 290" 1260 IF T\$(L,INT PI)="Y" OR T\$(L,INT PI)="X" OR T\$(L,INT PI)="#"
OR T\$(L,INT PI)="#" THEN IF G<F THEN LET H=H-(F-G): GO 1290" 1290
1270 IF G>F THEN LET B=B+(G-F)
1280 IF G<F THEN LET B=B-(F-G)
1290 GO SUB GE: PRINT AT VAL "19
",VAL "22";M\$: LET T\$(L,VAL "23"
TO )=M\$: PAUSE VAL "100": GO SU ,VHL "22"; M\$: LET T\$(L,VAL "23" TO ) = M\$: PAUSE VAL "100": GO SU B VAL "1160": GO TO VAL "1010" 2000 CLS: LET F=0: GO SUB DL 2005 PRINT AT 11,0; "LAST ENTRY N UMBER ";: IF NOT F THEN PRINT E\$ (1,4 TO 7) 2006 IF F THEN PRINT E\$ (1.8 TO 0) 2010 FOR X=X TO D+1: GO SUB LO: LET L\$=STR\$ (X-1): PRINT AT 21,2 6-LEN\_L\$;"ENTRY ";X-1: LET G=C: GO SUB GE 2030 PRINT AT 20,0;: GO 5UB ZE:
PRINT AT 18,0;B\$;AT 17,15;"BALAN
CE ";M\$: IF G=1 THEN PRINT AT 17
,5;" >>> OVERDRAUN <<<"
2040 IF NOT F THEN GO TO 2060
2050 PRINT PAPER 2;AT 19,0;"NO. 2050 PRINT PAPER 2;AT 19,0;"NO.
DATE SOURCE AMOUNT ": G
O SUB BP: INPUT "DEPOSIT NO. >";
LINE E\$(X, TO 2): IF F THEN GO 2070 TO 2070

2060 PRINT PAPER 2; AT 19,0; "NO
DATE DESCRIPTION AMOUNT ": G
O SUB BP: INPUT "CHECK NO.>"; LI
NE E\$(X, TO 4): IF X=(D+1) THEN
PRINT FLASH 1; AT 20,0; "REGISTER
FILLED AFTER THIS ENTRY": BEEP .
8,35: PAUSE 200

2070 PRINT PAPER 1; AT 20,0; B\$: I
F E\$(X,1) = "0" THEN GO TO MENU
2090 GO SUB BP: PRINT AT 8,0; "To
edit previous ENTRY enter ""\*"
": PRINT AT 18,0; E\$(X, TO 4): IN
PUT "DATE >"; LINE E\$(X,5 TO 9):
IF E\$(X,5) = "\*" THEN GO TO VAL "
2060-F\*10" TO MEN. 8,0;"lo 8,0;"lo 11: IN 2110 PRINT AT 18,5; E\$(X,5 TO 9): 2120 INPUT "DESCRIPTION >"; LI E\$(X,T TO 21): IF E\$(X,T) ="\*" E\$(X,T TO 21) HEN GO TO 2090 2140 GO SUB BP: PRINT AT 18,11;E \$(X,10 TO 21): INPUT "AMOUNT >"; LINE D\$: IF D\$(1)="\*" THEN GO T 2120 0 2120 2150 LET G=VAL D\$: GO SUB GE: PR INT AT 18,23; M\$: LET E\$(X,22 TO 30) = M\$: LET I=G: GO SUB BP: GO S UB 170: GO SUB BP: PRINT #0; AT 1 ,0; "† CONFIRM †": PAUSE O: IF IN KEY\$="1" THEN GO SUB LO: PRINT A T 18,0; B\$: GO TO VAL "2060+F\*10" 2170 GO SUB BP: LET D\$=E\$(X,5 TO 9): IF INKEY\$="#" THEN GO TO 21 40 2180 IF NOT F THEN LET Z=1: 1 N=24: LET E\$(1,4 TO 7)=E\$(X, 4): GO SUB AC 2190 IF F THEN LET Z=25: LET N=2 8: LET E\$(1,8 TO 9)=E\$(X, TO 2): LET 8: LET E\$(1,8 TO 9) = E\$(X, TO 2):
GO SUB AC
2200 LET U=0: PRINT AT 20,0; "Ent
er > = to view account status":
GO SUB BP: INPUT "CATEGORY >"; A\$
: IF A\$="=" THEN LET U=1: INPUT
"CATEGORY TO VIEW >"; A\$
2205 IF A\$=" " THEN GO TO 2360
2210 PRINT AT 20,0; B\$: IF NOT U
THEN LET E\$(X,40) = A\$
2220 IF D\$(2) ="/" THEN GO TO 224 2230 LET B=VAL D\$(1 TO 2): GO TO 2250 2240 LET B=VAL D\$(1) 250 FOR /1 TO 28: IF A\$=T\$(L,3) THEN IF V=1 THEN GO TO 2290 2270 IF A\$=T\$(L,3) THEN IF NOT V THEN LET O(L)=O(L)+I: GO TO 229 2280 NEXT : IF L>28 THEN GO TO 2 360 23**40** 23**50** G=C LET NOT F THEN LET C=C-I F THEN LET C=C+I 235**0** 237**0** 238**0** IF IF I > Ø AND C=G THEN GO TO 2

# For You TS2068 Gammers

ell last Wednesday I just saw the same of the year, or maybe more. It's or the Spectrum and it's called, drum oll please, Sentinal. The idea of the same is a unique one. You are placed n a 3D playing area with mountains and valleys. You must not let the Sentinal see you or he will absorb you and you will DIE. There are trees, locks and robots around for you to absorb. There are two problems the first is absorbing these items. You an only absorb them if you can see the base of the object. The other problem is movement. You move placing one of your robots some where and jumping to it. While doing all this you must keep an eye out for the Sentinal. It is a good blend of skill, orains and quick thinking.

### More Expo News

Dur mailing has gone out to all you but there. I hope you got a flyer and will come. If you can't make it please pass the flyer on to another binclairite or potential Sinclairite. If you didn't get a flyer and would like one please contact me. I am also working with the SNUG library and will pass on the updated mailing list to them. Hopefully this will help SNUG to expand their base and continue helping all of us Sinclair users and vendors to keep on computing.

When I mailed out the flyers I forgot to mention the special price offered for the room. It is suposed to be \$45 for the room per night. If you have nore in the room the cost will NOT go up. If you need extra beds there will be a charge. Remember you must call the motel directly to reserve a room.

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# The Digitizer and What's Happening

Well we have been assembling checking and every thing else necessary to put them together. Please note when I say we I am not including myself. Marty Miller, Dick Cultice, Gorden Kraemer and Neal Schultz have been doing the work. I just report it.

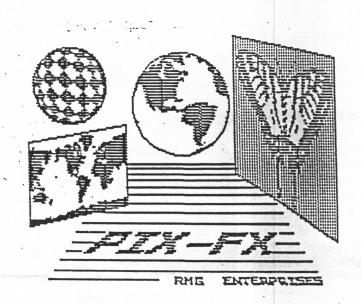
All boards have been shipped. If you ordered a board, and payed for it, and have not received it, please let us know. Just send us your name, address, what you ordered and a copy of your check or money order. Please include a copy of both sides. We will then check out the problem and remedy it.

For anyone who is not sure of the price the bare board costs \$19.95 plus \$3 for shipping and handling. The fully populated board costs \$49.95 plus \$3 for shipping and handling. If you want a feed thru connector add \$5. The feedthru is not necessary if you use a motherboard. But is necessary if you want to connect to the TS2068 Back bus.

### PRESIDENTS MESSAGE

Members please try to attend the next meeting. I don't want to exclude none members either but we need to set up our Expo committees and need your help. If you are not there you may miss the one you want and be on one you may not be good at.

Digitizers have been mailed and hopefully you have yours. If you don't please contact us. Include a copy of the canceled check. The following list of swaps comming up: Sun April 8. 1990. Expo Center, Madison WI, \$4 at door + parking.; Sat., May 5, 1990. Circle B Rec Center, Cedarburg WI \$3 at door.



\$1983 H J Di Riemo

## PIX-FX IS HERE!

FINALLY! A 2068 program that will allow you to MANIPULATE-MODIFY-CREATE-SAVE SCREENS You will find the pull-down menus, extensive online help and ease of customization some of the best features. The program uses a special "COMPRESSION" SAVE to save time and space when SAVEing SCREENS. Many other features!

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### The Expo From The North & West

First of all for you comming thru next one is highway 164, exit 295, labeled Waukesha - Sussex. You can exit there, turn around and go back east. Use the following directions to find the east bound exit.

For those of you comming thru the Madison area and points north and west please follow these directions to the Expo.

Following I94 east towards Milwaukee:

The exit just prior to the one to use is 295, highway 164.

This exit is approximatly 2 miles west of the Expo exit.

The exit you want is number 297, highway 18 & JJ, labeled Bluemound Road & Waukesha. Also there is a sign for the State Patrol cop shop. Take exit 297. Stay to the left after, exiting. This will be highway Waukesha. After taking the left road stay to the right as you have to stop lights.) Follow this road, Klassow, to the Holiday Inn. If anyone

has a problem finding it please call Chicago; if you miss the turnoff the the Inn for directions and don't forget to look for the SMUG signs. See you in Milwaukee.

#### G IGO Or In Otherwords The Meeting

Very interesting meeting. Two things happend. First the members agreed to postpone the elections till after the Expo in June. The idea is to allow the current slate of officers & directors to continue working to put on the Expo without break. The second is Neal's announcement he will not run for president again. This means someone out there must take over. The election will be held at a meeting after the Expo. You will be notified as to time and place. We decided to go with the computer generated T-Shirts. have to find an outlet for getting them on consignment. If you know of 18 & JJ, labeled Bluemound road & any places or have any ideas please attend the next meeting. In another paragraph is the phone list. Also when take the first right. (It will have your membership expires. If you are not paid up see Pancho right away.

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the OKIMATE 209 the ULTIMATE TS2068 printer?



USE W/AERCO PRINTER I/F? Yes, if an IBM parallel Plug 'n Print cartridge is used.

OKI 20 FEATURES? The OKI 20 can print in NLG, draft, pica, elite, fine, double width, italics, sub/ superscript, & underline. Plain or thermal paper (tractor/ friction feed) or acetate transparencies can be used.

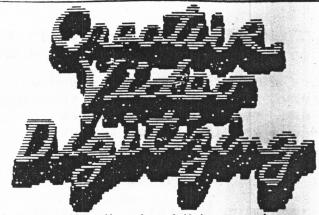
COLOR SCREENS HARD-COPY? Yes!! "COLOR COPY" supports FULL COLOR and b/w SCREEKS dumps & "PAINT & COPY" features HI-RES MODE coloring and copuing.

CUSTOM CHARACTER SETS? Yes, downline loadable character sets of custom characters and graphics can be designed and transfered to an OKI 20. The utility software "OKI D.L.C.G." allows for easy design of custom char. sets and "OKI D.L.P.G." can transform a portion of a SCREENS picture into a downline loadable character set.

OKIMATE 20 EXPENSIVE? No, the DKI 20 & Plug 'n Print cart. are widely available for about \$180. For a print sample, info. on 2068 software for the OKI 20, and a list of OKI 20 dealers/prices, send a LSASE to:

John McMichael 1710 Palmer Dr. Laramie, WY 82070





Multiply by three the enjoyment that can come from your S.M.U.6. Video Digitizer & TS2068 with this new software:

VIDEOTEX: Capture a video image from a VCR, video camera, etc., & view it in thirteen greyscale levels!

VIDEO 3-D: Creates a 3-D representation of a video image captured by VIDEDTEX in either normal 3-D or inverted 3-D. (See ad title for an example of the 3-D effect.) Four different I-axis "depths" may be selected.

VIDEOCOPY: Only for owners of an OKIMATE 20 color printer with IBM parallel Plug 'n Print cartridge.
Allows a video image captured by VIDEOTEX to be hardcopied in 13-level b/w greyscale or in color. Very colorful hi-res "modern art" depictions of the original b/w video image are automatically produced from a video data file. A color editor is available for custom "colorizing".

This software is priced at \$9.95 post-paid each, and comes with complete user notes & video digitizing suggestions. Send LSASE for additional information and order form to: JOHN McMICHAEL, 1710 PALMER DR., LARANIE, MY 82070

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We are a not-for-profit group devoted Newsletter subscription is available

Editor and contact person is: Bill Heberlein (414) 527 2191. Advertising

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to serving the interests of those who for only \$10 per year to non members own, use, and/or are interested in the or free with a club membership. A club Timex/Sinclair family of computers. membership is \$20 per year for a family membership.

cost for 1/2 page ad runing for six months is \$10. The ad SMUG maintains a gratis exchange of copy may be changed each month but you

SMUG BYTES 5052 N. 91st Street Milwaukee WI 53225 Address Correction Requested

### FIRST CLASS MAIL





The next meeting of SMUG will be held on: Wednesday, February 7,1990

6pm Set Up

6:30 Dues Collection (for late dues) Location:

10:30 Clean Up

7:30 Business Meeting Equitable Savings and Loan, 8:30 View of Expo Designs 145th and Capital Drive, 8:45 Discussion on Acceptable Ones Milwaukee Wisconsin